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EXAMINER	
ZHOU, TING	
ART UNIT	**PAPER NUMBER**
2173	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/976,188	GEIDL, ERIK M.	
	Examiner	Art Unit	
	Ting Zhou	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 31 August 2004 have been received and entered. Claims 1-33 as amended are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 6-7, 9-10 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Partanen et al. U.S. Publication 2003/0001899.

Referring to claim 1, Partanen et al. teach a method comprising evaluating a program field that has focus against information indicative of whether the field is configured to receive text input (determining whether the user has initiated manuscript input to any point on a touch-activated screen of a display, thereby causing a semi-transparent window to be opened) (page 1, paragraph 0016); and if the field is configured to receive text input (if a user activated manuscript input has been received) (page 1, paragraph 0016): providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to receive input data (upon user initiation of manuscript input at point 36 on the display screen of Figure 1, a semi-transparent window is

displayed relative to the field, allowing users to input manuscript characters, for example, the letter "I", while the field is operable to receive input data such as user input of particular letters and/or numbers from a virtual keyboard) (page 2, paragraph 0032 and page 3, paragraph 0038) ; receiving handwritten data at the input interface (page 2, paragraph 0022 and Figure 1); providing the handwritten data to a recognition engine (relaying the pattern of the handwritten character to the handwriting recognition software) (page 2, paragraph 0025); and returning a recognition result to the program (for example, recognizing the handwritten "I" and outputting it as the character "I" in Figure 1) (page 2, paragraph 0022).

Referring to claim 2, Partanen et al. teach the visible user input interface is semi-transparent (page 1, paragraphs 0015-0016).

Referring to claim 6, Partanen et al. teach providing the handwritten data to a recognition engine in response to detection of a submit button associated with the visible user interface (the semi-transparent user interface provides for the display of a virtual keyboard having letters, or buttons, the users can select) (page 3, paragraphs 0035 and 0038).

Referring to claim 7, Partanen et al. teach providing the handwritten data to a recognition engine is performed in response to a time being achieved (displaying the handwritten input for a predetermined period of time after the input from the input device, upon which the pattern is completed and recognized by the recognition software) (page 2, paragraph 0024page 3). paragraphs 0033-0035).

Referring to claim 9, Partanen et al. teach evaluating at least one window attribute corresponding to the field (determining whether the user has contacted the displayed window, or screen, with the stylus) (page 1, paragraph 0016 and page 2, paragraph 0032).

Referring to claim 10, Partanen et al. teach accessing window class information (page 1, paragraph 0016 and page 2, paragraphs 0027-0030 and 0032).

Referring to claim 12, Partanen et al. teach adjusting the appearance of the visible input window (the semi-transparent window may be moved or sized according to the preferences of the user) (page 1, paragraph 0015).

Referring to claim 13, Partanen et al. teach increasing the size of the visible input window to enable entry of additional handwritten data (increasing the size of the semi-transparent window) (page 2, paragraph 0031).

Referring to claim 14, Partanen et al. teach erasing the visible input window (selection of the virtual button 44 will cause the semi-transparent window to de-activate and disappear) (page 3, paragraph 0039).

Referring to claim 15, Partanen et al. teach the visible input window is erased in response to a close request (selection of the virtual button 44 will cause the semi-transparent window to de-activate and disappear) (page 3, paragraph 0039).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18-20, 23 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlimmer et al. in the article entitled "Quantitative Results Comparing Three Intelligent

Interfaces for Information Capture: A Case Study Adding Name Information into an Electronic Personal Organizer", published in the December 1996 issue of the *Journal of Artificial Intelligence Research 5*.

Referring to claim 18, Schlimmer et al. teach a method and system comprising user input interface code (user interface to receive user initiation of handwriting input in order to convert writing to Unicode text), a field typing engine configured to evaluate a field of the program, determine if that field is supported by the user input interface code (deciding if fields such as "Last", "Title", etc. are configured to support user input, i.e. whether the user has tapped on the field indicating a desire to input information), and if so, to communicate information to the user input interface code (if the user has tapped on the field, a desire to input information is received, thereby expanding the input field); the user input interface code drawing a visible input area to indicate that data may be entered therein, the drawing of the visible input area based on the information received from the field typing engine (when information is received that the user wants to input information, i.e. user has tapped on the field, the field expands to create a visible input area, shown by the dotted box in Figure 1, to allow users to write information); a recognition engine that receives entered data from the user input interface code and converts the entered data to a recognition result that is made available to the program by the user in put interface (the recognizer allows freeform input of writing and converts the writing to Unicode text) (Section 2 on page 330 and 331). This is further shown and explained in Figure 1.

Referring to claim 19, Schlimmer et al. teach the visible user input interface being semi-transparent (dotted-line box representing the expanded field allowing users to write information) (Figure 1).

Referring to claim 20, Schlimmer et al. teach evaluating at least one window attribute corresponding to the field against retrieved information (for example, opening the menu of recently used city names if the user taps on the "City" field) (page 332 and Figure 2).

Referring to claim 23, Schlimmer et al. teach the entered data comprising handwritten data (page 330), and further comprising a rulebase that determines an appearance of the visible input area including a displayed size thereof (for example, changing the size and appearance of the input area by closing the input area in response to selection of the "x" button at the bottom right corner of the input box) (Figures 1 and 3).

Referring to claim 25, Schlimmer et al. teach the visible input area has at least one button associated therewith for receiving a command (for example, selecting the "New" button for performing the command of inputting a new name) (page 331 and further shown in Figure 1).

Referring to claim 26, Schlimmer et al. teach providing the handwritten data to a recognition engine in response to detection of a submit button associated with the visible user interface (for example, submitting the name written as a new name by selecting the "New" button) (page 331 and further shown in Figure 1).

Referring to claim 27, Schlimmer et al. teach the user input interface code provides the recognition result to the program in a message queue associated with the program (for example, the "City" field in the Names++ application has a message queue of recently used and recognized city names) (page 332 and Figure 2).

Referring to claim 28, Schlimmer et al. teach the drawing of the visible input area by positioning the visible input area relative to the field based on the information received from the

field-typing engine (expanding the input area based on the field the user taps) (page 331 and Figure 1).

Referring to claim 29, Schlimmer et al. teach sizing the visible input area based on the information received from the field-typing engine (expanding the input area based on the field the user taps) (page 331 and Figure 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-5, 8 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Partanen et al. U.S. Publication 2003/0001899, as applied to claim 1 above, and Frink et al. U.S. Patent 5,956,423.

Referring to claim 3, Partanen et al. teach all of the limitations as applied to claim 1 above. However, Partanen et al. fail to explicitly teach whether the handwritten data corresponds to a gesture. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach evaluating the handwritten data received at the input interface to determine whether the data corresponds to a gesture (Frink et al.: column 8, lines 29-49 and column 10, lines 29-33). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et

al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Partanen et al. to include evaluation of the input for recognition of gestures, as taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 4, Partanen et al. teach all of the limitations as applied to claim 1 above. However, Partanen et al. fail to explicitly teach determining when the handwritten data corresponds to a gesture and providing at least one pen event corresponding to the gesture to the program. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach determining when the handwritten data corresponds to a gesture and providing at least one pen event corresponding to the gesture to the program (Frink et al.: column 2, lines 64-67, column 3, lines 1-4, column 8, lines 29-49, column 10, lines 63-67 and column 11, lines 1-4). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Partanen et al. to include evaluation of the input for recognition of gestures, as taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 5, Partanen et al. teach all of the limitations as applied to claim 1 above. Specifically, Partanen et al. teach a semi-transparent user interface (Partanen et al.: page 1, paragraph 0016). However, Partanen et al. fail to explicitly teach the gesture comprising user

input directed to an area of the program that is visible through the user interface. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach users inputting gestures directed to an area of the program that is visible through the interface (Frink et al.: column 2, lines 64-67 and column 3, lines 52-64 and column). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Partanen et al. to include evaluation of the input for recognition of gestures, as taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 8, Partanen et al. teach all of the limitations as applied to claim 1 above. Specifically, Partanen et al. teach providing handwritten data to a recognition engine (relaying the pattern of the handwritten character to the handwriting recognition software) (Partanen et al.: page 2, paragraph 0025). However, Partanen et al. fail to explicitly teach providing the handwritten data to a recognition engine in response to a gesture being detected. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach providing handwritten data to a recognition engine in response to a gesture being detected (Frink et al.: column 10, lines 29-33). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Partanen et al. to include evaluation of the input for recognition of gestures, as taught by Frink et al. One would have been motivated to

make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 16, Partanen et al. teach all of the limitations as applied to claim 1 above. Specifically, Partanen et al. teach erasing the visible input window (selection of the virtual button 44 will cause the semi-transparent window to de-activate and disappear) (Partanen et al.: page 3, paragraph 0039). However, Partanen et al. fail to explicitly point out the input window being erased in response to a time being achieved. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach erasing the input window in response to a time being achieved (sending the handwritten data to the recognition engine, and therefore erasing the input, when the user stops writing for a period of time) (Frink et al.: column 2, lines 44-63 and Figures 2A, 2B and 2C). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface and recognition engine of Partanen et al. to include the erasing of the input in response to a time being achieved. One would have been motivated to make such a combination in order to allow users to perform functions such as note taking faster and more efficiently; recognizing characters after a certain time has elapsed, representing the user has completed taking notes, is faster and more efficient than translating the written data character by character while the user is taking notes.

Referring to claim 17, Partanen et al. teach all of the limitations as applied to claim 1 above. Specifically, Partanen et al. teach erasing the visible input window (selection of the virtual button 44 will cause the semi-transparent window to de-activate and disappear) (Partanen

et al.: page 3, paragraph 0039). However, Partanen et al. fail to explicitly teach a gesture being detected. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Partanen et al. In addition, Frink et al. further teach a gesture being detected (Frink et al.: column 2, lines 64-67). It would have been obvious to one of ordinary skill in the art, having the teachings of Partanen et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface that erases the input window of Partanen et al. to include detecting a gesture taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Partanen et al. U.S. Publication 2003/0001899, as applied to claim 1 above, and Gilai et al. U.S. Patent 6,018,736.

Referring to claim 11, Partanen et al. teach all of the limitations as applied to claim 1 above. Specifically, Partanen et al. teach obtaining information indicative of whether the field is configured to receive text input (determining whether the user has initiated manuscript input to any point on a touch-activated screen of a display, thereby causing a semi-transparent window to be opened) (Partanen et al.: page 1, paragraph 0016). However, Partanen et al. fail to explicitly teach accessing a database. Gilai et al. teach a method comprising handwriting recognition (Gilai et al.: column 23, lines 7-10) similar to that of Partanen et al. In addition, Gilai further teach accessing a database to obtain information (Gilai et al.: column 5, line 63 – column 6, line 3). It would have been obvious to one of ordinary skill in the art, having the teachings of

Partanen et al. and Gilai et al. before him at the time the invention was made, to modify the method determining whether a field is configured to receive text input of Partanen et al. to include the access of a database to obtain information taught by Gilai et al. One would have been motivated to make such a combination in order to provide an organized and efficient way of indexing, storing and retrieving a large amount of information.

6. Claims 21-22 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlimmer et al. in the article entitled "Quantitative Results Comparing Three Intelligent Interfaces for Information Capture: A Case Study Adding Name Information into an Electronic Personal Organizer", published in the December 1996 issue of the *Journal of Artificial Intelligence Research 5*, as applied to claim 18 above, and Frink et al. U.S. Patent 5,956,423.

Referring to claim 21, Schlimmer et al. teach all of the limitations as applied to claim 18 above. However, Schlimmer et al. fail to explicitly teach determining when the handwritten data corresponds to a gesture and providing at least one pen event corresponding to the gesture to the program. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Schlimmer et al. In addition, Frink et al. further teach determining when the handwritten data corresponds to a gesture and providing at least one pen event corresponding to the gesture to the program (Frink et al.: column 2, lines 64-67, column 3, lines 1-4, column 8, lines 29-49, column 10, lines 63-67 and column 11, lines 1-4). It would have been obvious to one of ordinary skill in the art, having the teachings of Schlimmer et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Schlimmer et al. to include evaluation of the input for recognition of gestures,

as taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 22, Schlimmer et al. teach all of the limitations as applied to claim 18 above. However, Schlimmer et al. fail to explicitly teach the gesture comprising user input directed to an area of the program that is visible through the user interface. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Schlimmer et al. In addition, Frink et al. further teach users inputting gestures directed to an area of the program that is visible through the interface (Frink et al.: column 2, lines 64-67 and column 3, lines 52-64 and column). It would have been obvious to one of ordinary skill in the art, having the teachings of Schlimmer et al. and Frink et al. before him at the time the invention was made, to modify the handwriting input interface of Schlimmer et al. to include evaluation of the input for recognition of gestures, as taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user.

Referring to claim 30, Schlimmer et al. teach a system comprising an application program having at least one application input area into which user input data can be entered (for example, entering name and company information into the Names application), user input interface code external to the application program (user interface to receive user initiation of handwriting input in order to convert writing to Unicode text), a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area, the user

interface code providing a semi-transparent input area based on the attribute information when called (deciding if fields such as "Last", "Title", etc. are configured to receive user input, i.e. whether the user has tapped on the field indicating a desire to enter information; and if the user has tapped on a field, the field expands to allow users to write information), and a handwriting recognition engine, configured to receive text information and responding by returning recognized text when provided with the information (the recognizer allows freeform input of writing and converts the writing to Unicode text) (Schlimmer et al.: Section 2 on page 330 and 331 and further shown and explained in Figure 1). However, Schlimmer et al. fail to explicitly teach a timing mechanism and a gesture engine. Frink et al. teach an interface for inputting and recognizing handwritten data (Frink et al.: column 2, lines 37-65) similar to that of Schlimmer et al. In addition, Frink et al. further teach a timing mechanism configured to cause removal of the input when no user interaction with the input area is detected for a period of time (sending the handwritten data to the recognition engine, and therefore erasing the input, when the user stops writing for a period of time) (Frink et al.: column 2, lines 44-63 and Figures 2A, 2B and 2C), and a gesture engine invoked to determine whether the user input data is text or a gesture (Frink et al.: column 8, lines 29-49 and column 10, lines 29-33). It would have been obvious to one of ordinary skill in the art, having the teachings of Schlimmer et al. and Frink et al. before him at the time the invention was made, to modify the input interface and recognition system of Schlimmer et al. to include the timing and gesture mechanisms taught by Frink et al. One would have been motivated to make such a combination in order to allow users to easily edit the documents, reducing the confusion of mixing up editing commands and data input by the user. Furthermore, it allows users to perform functions such as note taking faster and more efficiently;

recognizing characters after a certain time has elapsed, representing the user has completed taking notes, is faster and more efficient than translating the written data character by character as the user is taking notes.

Referring to claim 31, Schlimmer et al. teach the recognized text is received by the user interface code and made available to the application program (the handwriting recognizer recognizes the input handwriting, converts it to Unicode text and displays it) (page 330 and 331 and further shown in Figure 1).

Referring to claim 32, Schlimmer et al. teach the application program displaying the recognized text in the application input area (page 330 and 331 and further shown in Figure 1).

Referring to claim 33, Schlimmer et al. teach a growth rulebase determining whether to alter an appearance of the semi-transparent input area in response to the information received therein (for example, changing the appearance of the input area by closing the input area in response to selection of the "x" button at the bottom right corner of the input box), as shown in Figures 1 and 3.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schlimmer et al. in the article entitled "Quantitative Results Comparing Three Intelligent Interfaces for Information Capture: A Case Study Adding Name Information into an Electronic Personal Organizer", published in the December 1996 issue of the *Journal of Artificial Intelligence Research 5*, as applied to claim 18 and 23 above, and Microsoft Excel.

Referring to claim 24, Schlimmer et al. teach all of the limitations as applied to claims 18 and 23 above. Specifically, they teach adjusting the appearance of the visible input window

(Figures 1 and 3). However, Schlimmer et al. fail to explicitly teach increasing the size of the visible input window based on the data approaching an end thereof and to enable entry of additional data. Microsoft Excel (copyright 1999) (see screenshot 1) teaches an input interface that adjusts the appearance of the visible input window (see screenshots 2 and 3 attached at the end of the office action) similar to that of Schlimmer et al. In addition, Microsoft Excel further teaches increasing the size of the visible input window based on the data approaching an end thereof and to enable entry of additional data (see screenshots 2 and 3). It would have been obvious to one of ordinary skill in the art, having the teachings of Schlimmer et al. and Microsoft Excel at the time the invention was made, to modify the input interface of Schlimmer et al. to include increasing the size of the input window as needed, taught by Microsoft Excel. One would have been motivated to make such a combination in order to allow users to enter as much information as needed, making it easier for them to input and view information.

Response to Arguments

8. Applicant's arguments with respect to claims 1-17 have been fully considered but are moot in view of the new grounds of rejection.

9. Applicant's arguments filed on 31 August 2004 with respect to claims 18-33 have been fully considered but they are not persuasive:

10. With respect to claim 18, applicant asserts that Schlimmer does not teach evaluating a field of a program to determine if that field is supported by a user input interface code, and if so,

communicating information to the user input interface code such that the user input interface code may draw a visible user input interface; applicant further asserts that at best, Schlimmer teaches expanding an input field when a user double-taps an input field such that the input field expands for the user to enter handwriting data and that expanding an input field after a user-initiated double-tap is not the same as evaluating a field for its ability to receive an input and then drawing a visible user input interface in response to that determination. The examiner respectfully disagrees. As described on page 331 and shown in Figure 1, Schlimmer et al. show a visible user input interface, i.e. the dotted box for the field "First", allowing users to input writing after the user has tapped on the field; in other words, the field "First" accepts writing after the user has initiated a desire to input writing by tapping on the field. Therefore, whether user has tapped on the field has to be determined to see whether the field "First" supports user input; if the field does support user input, i.e. the user has tapped on the field, then the user's desire to input writing is known and a visible user input interface, i.e. the expanded dotted box facilitating input in Figure 1, can be displayed. The field "First" is evaluated for its ability to receive input, i.e. whether user has tapped on the field to indicate a desire to input writing, and then drawing a visible user input interface in response to that determination, i.e. displaying an expanded dotted box for receiving input writing in response to determination of a user tap.

11. With respect to claims 21-22, applicant asserts that these claims include the limitations of independent claim 18, and therefore, fail to disclose the recitation discussed in the analysis of claim 18. The examiner respectfully disagrees. In view of the analysis of claim 18 given by the

examiner above, the examiner contends that Schlimmer et al. teach the limitations of claims 21-22 that are included from independent claim 18.

12. With respect to claim 30, applicant asserts that Schlimmer does not teach a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area, the user interface code providing a semi-transparent input area based on the attribute information when called and that at best, Schlimmer teaches expanding an input field when a user double-taps a tab in the field such that a user may enter handwriting data and that the teachings of Schlimmer cannot be construed to teach a semi-transparent input area based on the attribute information. The examiner respectfully disagrees. Similar to the analysis of claim 18 given by the examiner above, attribute information, such as whether users have tapped on a field, associated with an input field, such as the "First" field in Figure 1, is used to determine whether users have expressed an interest in inputting writing and based on that, i.e. if they have expressed an interest in inputting writing by tapping on the field, then a semi-transparent input area, i.e. the expanded doted box facilitating input for the "First" field in Figure 1, is displayed (pages 330 and 331). Furthermore, applicant asserts that Schlimmer lacks any motivation to be combined with other references and that nowhere in Schlimmer can it be found any suggestion that handwriting recognition systems may also recognize gestures as handwriting. The examiner respectfully disagrees. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight

reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Schlimmer et al. describe three intelligent user interfaces, one of them being handwriting recognition, as recited in the Abstract. Frink et al. also teach a similar user interface that facilitates entry and recognition of handwritten text, as recited in column 2, lines 37-63 and in addition, the ability to input and recognize gestures, as recited in column 2, lines 64-67. Furthermore, Frink et al. states the motivation that some handwriting recognition systems recognize not only characters, letters and punctuation, but also gestures, which are extensively used when editing documents, as recited in column 1, lines 29-40. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Schlimmer et al. and Frink et al. before him at the time the invention was made, to combine the handwriting recognition systems of Schlimmer et al. and Frink et al., producing an interface that recognizes both handwritten text and gestures in order to allow users to easily edit the documents, as suggested by Frink et al. in column 1, lines 29-40, reducing the confusion of mixing up editing commands and data input by the user.

13. With respect to claims 31-33, applicant asserts that these claims include the limitations of independent claim 30, and fail to disclose the recitation discussed in the analysis of claim 30. The examiner respectfully disagrees. In view of the analysis of claim 30 given by the examiner above, the examiner contends that Schlimmer et al. and Frink et al. teach the limitations of claims 31-33 that are included from independent claim 30.

14. Therefore, it can be seen that Schlimmer et al. and combinations of Schlimmer et al. and Frink et al. anticipate the limitations of the subject invention.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-4058.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1 December 2004

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